AMENDMENTS TO THE CLAIMS

1. **(Original)** An isolated compound which is a ligand of or otherwise interacts with a protein which comprises an amino acid sequence as set forth in SEQ ID NO: 2 or an amino acid sequence having at least about 40% similarity thereto.

2. **(Currently amended)** The isolated compound of Claim 1 wherein the protein is encoded by a nucleic acid molecule which comprises a nucleotide sequence as set forth in SEQ ID NO: 1 or a ~~nucelotide~~ nucleotide sequence having at least about 40% identity thereto or a nucleotide sequence capable of hybridizing to SEQ ID NO: 1 or its complementary form under low stringency conditions.

3. **(Original)** The isolated compound of Claim 2 wherein the compound is a ligand of FIT defined by amino acid sequence SEQ ID NO: 2.

4. **(Original)** The isolated compound of Claim 2 wherein the compound is a ligand of FIT defined by an amino acid sequence encoded by *FIT* defined by nucleotide sequence SEQ ID NO: 1.

5. **(Currently amended)** The isolated compound of Claim 1 ~~or 2 or 3 or 4~~ wherein the compound is a peptide, polypeptide or protein or a chemical analog, mimetic or homolog thereof.

6. **(Currently amended)** The isolated compound of Claim 1 ~~or 2 or 3 or 4~~ wherein the compound is a chemical molecule.

7. **(Currently amended)** The isolated compound of Claim 1 ~~or 2 or 3 or 4~~ wherein the compound is a soluble receptor for FIT.

8. **(Currently amended)** The isolated compound of Claim 1 ~~or 2 or 3 or 4~~ wherein the compound is selected from the group consisting of endophilin 3, endophilin 1, β-arrestin 1, β-arrestin 2, the α-1 subunit of the AP2 complex~~,~~ and the α-2 subunit of the AP2 complex, or ~~and~~ a homolog, derivative or mimetic thereof.

9. **(Currently amended)** An agonist or antagonist of the isolated compound of Claim 1 ~~any one of Claims 1 to 8~~.

10. **(Original)** A method of identifying a ligand of the protein FIT or its derivatives, said method comprising introducing a first genetic construct in a yeast strain, said genetic construct comprising a nucleotide sequence encoding all or part of FIT fused to a nucleotide

sequence encoding one of a DNA binding (DB) domain or an activation domain (AD) and introducing a second genetic construct into said yeast comprising a cDNA, said second genetic construct comprising elements of a cDNA library fused to a nucleotide sequence encoding the other of a DB domain or AD domain and selecting yeast cells which comprise both genetic constructs and in which a reporter gene has been subjected to two-hybrid dependent transcription.

11. **(Original)** The method of Claim 10 wherein the yeast ~~reporte~~ reporter gene is *HI53*.

12. **(Currently amended)** A method for modulating expression of genetic material encoding a FIT ligand~~, such as~~ selected from the group consisting of endophilin 3, ~~and~~ endophilin 1, β-arrestin 1, β-arrestin 2, ~~and 2 and~~ the α-1 subunit of the AP2 complex and the α-2 subunits of the AP2 complex, or a homologs or derivatives thereof in a mammal, said method comprising contacting the *FIT* ligand gene ~~the~~ material with an effective amount of a modulator of the expression of the FIT ligand genetic material for a time and under conditions sufficient to up-regulate or down-regulate or otherwise modulate expression of the FIT ligand genetic material.

13. **(Original)** A method of modulating activity of FIT in a mammal, said method comprising administering to said mammal a modulating effective amount of a soluble FIT ligand or a derivative thereof or an antagonist or agonist of FIT-ligand interaction for a time and under conditions sufficient to increase or decrease FIT activity or levels.

14. **(Currently amended)** A method of treating a mammal suffering from a condition characterized by one or more ~~sysmptoms~~ symptoms of an unhealthy state, including the presence or absence of a disorder associated with obesity, anorexia, weight maintenance, inflammation, diabetes, and/or metabolic energy levels comprising administering to said mammal an effective amount of an agent for a time and under conditions sufficient to modulate the activity of FIT or the interaction between FIT and a FIT ligand.

15. **(Currently amended)** A composition comprising a FIT ligand or a soluble form of a FIT ligand~~, such as~~ selected from the group consisting of endophilin 3, ~~and~~ endophilin l, β-arrestin 1, β-arrestin 2, ~~and 2 and~~ the α-1 subunit of the AP2 complex, and the α-2 subunits of the AP2 complex, or a modulator of a gene expression of a FIT ligand, or an antagonist or

agonist of FIT-ligand interaction, and one or more pharmaceutically acceptable carriers and/or diluents.

16. **(Currently amended)** A method of manufacture of ~~Use of a compound which is a ligand of or otherwise interacts with a protein which comprises an amino acid sequence as set forth in SEQ ID NO: 2 or an amino acid sequence having at least about 40% similarity thereto in the manufacture of~~ a medicament comprising the isolated compound of Claim 1 for the treatment of obesity, anorexia, weight maintenance, inflammation and/or metabolic energy levels.

17. **(Currently amended)** The method ~~Use~~ of Claim 16 wherein the protein is encoded by a nucleic acid molecule which comprises a nucleotide sequence as set forth in SEQ ID NO: 1 or a nucelotide sequence having at least about 40% identity thereto or a nucleotide sequence capable of hybridizing to SEQ ID NO: 1 or its complementary form under low stringency conditions.

18. **(Currently amended)** The method ~~Use~~ of Claim 17 wherein the compound is a ligand of FIT defined by amino acid SEQ ID NO: 2.

19. **(Currently amended)** The method ~~Use~~ of Claim 17 wherein the compound is a ligand of FIT defined by an amino acid sequence encoded by *FIT* defined by nucleotide sequence SEQ ID NO: 1.

20. **(Currently amended)** The method ~~Use~~ of Claim 17 wherein the isolated compound of Claim 1 ~~or 2 or 3 or 4 wherein the compound~~ is a peptide, polypeptide or protein or a chemical analog, mimetic or homolog thereof.

21. **(Currently amended)** The method ~~Use~~ of Claim 17 wherein the isolated compound of Claim 1 ~~or 2 or 3 or 4 wherein the compound~~ is a chemical molecule.

22. **(Currently amended)** The method ~~Use~~ of Claim 17 wherein the isolated compound of Claim 1 ~~or 2 or 3 or 4 wherein the compound~~ is a soluble receptor for FIT.

23. **(Currently amended)** The method ~~Use~~ of Claim 17 wherein the isolated compound of Claim 1 ~~or 2 or 3 or 4 wherein the compound~~ is selected from the group consisting of endophilin 3, endophilin 1, β-arrestin 1, β-arrestin 2, the α-1 subunit of the AP2 complex~~,~~ and the α-2 subunit of the AP2 complex, or ~~and~~ a homolog, derivative or mimetic thereof.